



E-LEARNING: NEW EMERGING TECHNOLOGIES IN LIBRARIES

Dr. Veena Eranna Ankad
Librarian

Vijnaneshawar Government Law Collage, Kalaburagi.

ABSTRACT :

This paper provides an overview of trends in eLearning including technologies, industry, courseware development tools, learners, counties and their commitments. It summarizes key research findings and identifies relevant eLearning benefits to all levels of education particularly to higher education. Also discusses the challenges of implementation of eLearning both at educational and corporate sectors. Also reviews the level of use of various eLearning technologies for teaching and learning in Library & Information Science by various schools in different countries in the world.



KEYWORDS : e-Learning. IT in Libraries. New Technologies, Libraries.

1. INTRODUCTION:

Today we are witnessing that Higher Education is in the midst of technological transformation. Over the next decade, there will be drastic change in the present teaching and learning system as universities and colleges have to respond to global, social, political, technological, and learning research trends. The advantages of instant communication and global accessibility over the Internet, together with decreasing costs of communication hardware and software have fostered unparalleled growth in eLearning. It reduces time and travel expenses, allowing people to complete online courses from their homes and offices, further increasing their ability to fit into their busy schedules. It also allows businesses to educate their employees on new technologies and reduces the amount of time it takes to train instructors (Deitel, Deitel and Steinbuhler, 2001).

In general over the past time decade's information and communication technology services have expanded significantly in every area of human life. The education industry has also experienced a major overhaul with the advent of digital learning. Ore education system has been able to overcome certain stereotypical barriers as well which has in a way, enhanced the learning experience, we are no longer bound by our physical location or timings and even funds o certain extent in order to learn new things . Digital learning or e-learning is a platform where anybody and everybody having an internet connected device could join to learn various or enhance their skill set. To understand e-learning in a better way. Let's try and answer a few questions.

The oral tradition in the ancient 'Gurukul' and Ashrams has taken many steps to words education. The whole landscape of reading has changed a lot in this second decode of the twenty-first century. Having gone through the last century (Dash 2004). Today's primary and secondary education is being equipped with new age tools and tricks. Simple blackboards have been replaced by smart

boards and chalk clay has been replaced by various marker pens. The stick used to show has replaced the laser pointer slide projectors and LCD projectors have now become a must in every class. The prevalence of audio-visual system in education is increasing. Boards with touch screens are now being used in schools for easy and good presentation. The workings of the teaching system are changing rapidly.

E-learning is the electronic method of education used in classroom teaching using information technology. It is a satisfying learning method that improves the quality of education and imparts new information to students as well as teachers beyond books knowledge. E-learning tools include computers, projectors, mobiles, radios, televisions, DVD's LCD monitors. In simple manner, e-learning means learning in its own place with the help of the internet and other communication tools.

E-learning material include audio, and video clips, animated clips educational software, 3D models, materials on the internet especially, YouTube, Google play store, websites and blogs, E-learning technology is easy for teachers and students to handle. Now-a-days, the use of computers is becoming compulsory in all fields. Education is no exception from this area. As children begin to use computers. Efforts are being made to teach them different things through the same medium. This can be called e-learning.

2. E-LEARNING

E-learning is a short for electronic learning, refers to the process of acquiring knowledge skills an information through digital means typically delivered over the internet or electronic devices. It encompasses a wide range of educational activities and resources that utilize digital technology to facilitate learning outside of traditional classroom setting. E-learning can take various forms. Including online courses. Virtual classrooms, webinars interactive tutorials, digital textbooks, and multimedia presentations.

According to UNESCO, E-learning is described as the tool and the processes to access, retrieve store, organize, manipulate, produce present and exchange information by the electronic. And exchange information by the electronic and other automated means. These include the devices hard wore, digital cameras, phones, faxes, modems, CD and DVD players and recorders. Digitized video/radio and T.V programs database programs and multimedia programmers.

E-learning is the process of sharing knowledge through various channels such as e-books, CDs, webinars and electronic learning is the delivery of learning and training through digital resources. Although e-learning is provided through electronic devices such as computers, tablets, and even cellular phones that are connected to the internet.

In some definitions e-learning encompasses more than just the offering of wholly on line courses. For instance,

1. Oblinger and Hawkins (2005) noted that e-learning has transformed from a fully online course to using technology to deliver part or all of a course independent of permanent time and place,
2. Also the European commission (2001) describes, e-learning as the use of new multimedia technologies and the internet to increase learning quality by easing access to facilities and service as well as distant exchange and collaboration.
3. Arkorful and Abaidoo defined e-learning as using information and communication and communication technologies to enables access to online teaching and learning resources in their 2015.
4. Ruiz, mintzer, and Leipzig defined e-learning as using internet technologies to enhance performance an knowledge in their 2006.

3. IMPORTANCE OF E-LEARNING:

E-learning is the act of learning or educating via digital resources such as software programs mobile devices and the internet.

The use of digital platforms for learning is vividly changing our education system. Traditional classroom training days are slowly coming to an end due to high speed internet and technology advancement. The pandemic has grown the importance of e-learning globally.

A drastic shift to electronic learning after the pandemic has brought limit less advantages to students. The ministry of electronics and information technology identifies online learning as an essential tool for importing education.

Let's decode how e-learning is creating an impact in the education sector.

3.1 Accommodates the needs of every student: online learning caters to the needs of each student. The digital revolution has led to remarkable changes in how we access content. Students can learn on the go irrespective of their location. And accommodations provide students with opportunities to achieve the same outcomes and to obtain the same benefit as students without disabilities. By addressing barriers, accommodations create better access to learning opportunities for students with disabilities.

Things Every Student Needs:

- Every student needs self-knowledge...
- Every student needs inspiring models- learn
- Every student needs feedback
- Every student needs creative spaces, tools, an opportunities
- Every student needs ideas.

3.2 Access to lectures any number of times: unlike classroom teaching, students can access the e-learning content any number of times. And it is beneficial when preparing for the exam. Through online learning you can access the lecture whenever you want as per your convenience and revisit lessons any number of times. It saves the extern hours and sometimes days that you would normally spend in a classroom or even travelling to and from the event.

- **Updated Content:** To the update your e-learning content and materials is to audit your existing content and identify what needs to be changed, added, deleted and improved. You can use various tools and methods to audit you content, such has content inventories, analytics, surveys, or peer reviews. The e-learning platforms provide access to updated content. It makes sure that you are in synchrony with the modern learners.
- **Quick Delivery of Lesions:** In comparison to the traditional teaching mode, online learning has relatively faster delivery access. Post-2020, students have adapted the learning concept completely, one of the reasons for it is quick access to lessons. In comparison to the traditional teaching mode, online learning has relatively faster delivery access. The time required to learn through online lessons is reduced to 25% to 60% of what is the need in traditional learning.
- **Scalability:** Online learning as you develop learning initiatives for your organization, you may think about how they will hold up for three, five, or even ten years. Scalability mans that your learning management system has the ability to expand with business needs. New technologies, new integrations, business expansion. You will also need to support new technologies and integrations, organizational changes an market growth to name a few. Online teaching helps students to create and communicate new ideas. You get the chance to uplift your skill and gain knowledge apart from school education. One of the prime importance's of e-learning is that it helps students and teachers develop advanced skills.

4. TYPES OF E-LEARNING:

Different and various types of e-learning currently exist, including web-based learning and virtual classrooms. The world was not so comfortable when the concept of e-learning was introduced many years ago, but over the concept of e-learning was introduced many years ago, but over the time, e-learning has made its place in the entire educational system and the countries an individuals of the world have come closer to each other. In simple manner, there are two types of e-learning methods.

Synchronous e-learning system: This educational system means, at the same time on such occasions, students and teachers can be present in different places and interact with each other at the

same time. This way the student can get the answers to his questions at the same time and his questions are solved immediately. This is why it is also called real time learning. This type of e-learning method provides class study material with the help of many different online tools. Some examples of synchronous e-learning rules are audio and video conferencing, live chat and virtual classrooms. And of course, it became more and more popular in a few years.

Asynchronous e-learning system: This educational system means not at once. There is no alternative to real-time or verbal communication between students and teachers. Curriculum information is already available on the web. The biggest advantage of this type of e-learning system is that students can access educational courses whenever they need to. For this reason, a large section of students are eager to learn through asynchronous educational methods.

In the case of asynchronous online learning groups of students study independently at different times and locations from each other without real-time communication taking place. Asynchronous e-learning methods are often considered to be more student-centered than their synchronous counterparts as they give students more flexibility.

Electronic or digital transformation is now affecting every sector from corporate, business to education. Various technologies in education have radically changed the way of teaching-learning methods. Among the many important discoveries of the 21st century. E-learning has become one of the most important methods of higher education, especially for working professionals. It is every important for a person to increase his knowledge in today's competitive world. Currently there are so many interactive training technologies available. E-learning software development is evolving according to new methods. Needs and requirements. E- Learning is making a huge difference in every field. Computer and internet-based technologies have become more accessible due to the data prices of smart phones and affordable data.

5. NEW EMERGING TECHNOLOGIES OF E-LEARNING IN LIBRARIES.

5.1 Big data analytics:

Has to do with information. In general, data means information. This information. This information can be in any form. That is, reading a newspaper. It contains a variety of information. When the same information is converted with the help of computers and other devices, it is created in digital form. The data that is generated after this can be easily sent here and there through other e-tools. And this kind of over-generated data is called Big data has revolutionized the e-learning industry. With the help of big data analytics, it has become easy for professionals to create more engaging, and informative modules. This technology has simplified the complex processes of understanding consumer behavior and demand.

5.2 Micro- learning:

The word micro-learning is derived from the Greek word, which means 'small'. It is about learning through internet or with the help of using a small amount of training materials. In fact, micro-learning is the future of education. At present, this is evidence in the field of education. You have to constantly engage in the development of your own skill, otherwise the speed at which he worlds is changing, and you may soon fall behind and grow old. Micro-learning requires very little effort from individual sessions and is easy to remember and understand. Info graphics, webinars, audio clips, podcasts, etc.

5.3 Virtual reality and augmented reality:

Virtual devices have become popular among technology fans and media fans, but the virtual world is still new to many. Virtual reality is the creation of a computer generated environment. It allows the user to fully interact with the alternative, created world by accessing it through an immersive device like a headset. In virtual reality, the created environment is completely different from the physical world, especially when it involves complex mediums such as movies (Phondake, 2018)

Augmented reality is a way to connect with the advanced environment. However, if virtual reality wants to completely change our world, then extended reality only adds to it. In this way, people can interact with their environment with more information from enhanced reality devices or applications.

5.4 Personalized learning:

The primary drawback of the traditional teaching method is that the study material prepared for intelligent students is exactly the same as the study material prepared for students with general intelligence. But e-learning solutions providers realized the need for personalized content. This approach provides customized education according to everyone's strengths, skills and interests. It includes specialized e-tutorials, videos and other digital study materials, designed to meet a person's level of understanding.

5.5 Cloud-based learning:

Cloud-based learning platforms are just one of many types of e-learning software. Cloud services have expanded the reach of users in many areas, and e-learning is no exception. In particular, organization e-learning has proven to be a boon in terms of cloud-based service data and cost-savings. The introduction of cloud-based learning has allowed teachers to access digital modules efficiently. Also, cloud-based data sharing has resolved the issue of copyright infringement to a great extent.

5.6 Virtual classroom:

A virtual classroom is an online teaching and learning environment where teacher and students can present course materials, engage and interact with other members of the virtual class, and work in groups together. The key distinction of a virtual classroom is that it takes place in a live, synchronous setting. A virtual classroom is where the teacher is sitting somewhere far away or abroad and students study through computer/mobile or other means through the internet. The medium is so powerful that students can ask teachers their own questions, just like the teachers are teaching in front of them. The advantage of this technology is that you do not have to go to any distant educational institution for the course. Technology has not only affected our daily lives, but our education system has also been enriched by high technology.

5.7 Fixed E-Learning

Fixed e-learning is a fancy name for something you are likely already familiar with, 'fixed' in this context means that the content used during the learning process does not change from its original state and all the participating students receive the same information as all the others. The materials are predetermined by the teachers and don't adapt to the student's preferences.

Adaptive e-learning is a new and innovative type of e-learning, making it possible to adapt and redesign learning materials for each learner. Taking several parameters such as student performance, goals, abilities, skills, and characteristics into consideration, adaptive e-learning tools allow education to become more individualized and student-centered than ever before.

5.8 Linear E-Learning

When referring to human-computer interaction, linear communication means that information passes from sender to receiver without exception. In the case of e-learning, this becomes a very limiting factor, as it does not allow two-way communication between teachers and students. This type of e-learning does have its place in education, although it's becoming less relevant with time. Sending training materials to students through television and radio programs is a classic example of linear e-learning.

5.9 Adaptive E-learning

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We are now at a point where laboratory based adaptive instructional techniques can be used for the mathematical sequencing of student data. When done correctly, this could mean a new era for educational science. While this type of e-learning can be more difficult to plan and accomplish than traditional teaching methods, its potential value and effectiveness are often understated.

5.10 Collaborative Online Learning

Collaborative e-learning is a modern learning method through which multiple students learn and achieve their learning objectives together as a group. Students must work together and practice teamwork to achieve their common learning objectives.

Collaborative learning refers to a strategy in which student of different performance levels work together in small groups toward a common goal. Students are responsible for each other's learning as well as their own. The strategy of online collaborative learning moves collaborative learning from face-to-face to online.

5. CONCLUSION:

To conclude, E-learning is not just a change of technology. It is part of a redefinition of how we as a species transmit knowledge, skills, and values to younger generations of workers and students. This book makes a few predictions of how e-learning and the functions it serves will continue to develop. The world e-learning is used as a synonym for online education. It is revamping the style of providing and receiving education. Learners will have access to millions or billions of knowledge modules. Some will be web pages with simple text and graphics. Others may include multimedia simulations. In many fields, e-learning has become the default way to conduct training or to provide education.

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